



**Air Quality
PERMIT TO CONSTRUCT
and
TIER II OPERATING PERMIT**

**State of Idaho
Department of Environmental Quality**

PERMIT No.: T2-2007.0228

FACILITY ID No.: 055-00047

AQCR: 62

CLASS: SM80

SIC: 3086

ZONE: 11

UTM COORDINATE (km): 501.5, 5288.5

1. PERMITTEE

Foam Molders, Inc.

2. PROJECT

Tier II operating permit renewal

3. MAILING ADDRESS

9456 N. McGuire Rd.

CITY

Post Falls

STATE

ID

ZIP

83854

4. FACILITY CONTACT

Gary Bremer

TITLE

President

TELEPHONE

(208) 777-8485

5. RESPONSIBLE OFFICIAL

Gary Bremer

TITLE

President

TELEPHONE

(208) 777-8485

6. EXACT PLANT LOCATION

9456 N. McGuire Rd., Post Falls

COUNTY

Kootenai

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Expanded plastic foam product manufacturing

8. PERMIT AUTHORITY

This permit to construct and Tier II operating permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200 through 228 and IDAPA 58.01.01.400 through 470, respectively. This permit pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

Only the terms and conditions pertaining to Tier II operating permit requirements are subject to the expiration date of this permit.

The permit to construct conditions in this permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes in design, equipment or operations may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 through 228 of the Rules for the Control of Air Pollution in Idaho.

CAROLE ZUNDEL, PERMIT WRITER

DEPARTMENT OF ENVIRONMENTAL QUALITY

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER

DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED:

PROPOSED

DATE MODIFIED/REVISED:

DATE EXPIRES:

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List of Acronyms, Units, and Chemical Nomenclature

AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
EPS	expandable polystyrene
gr/dscf	grains (1 lb = 7,000 grains) per dry standard cubic foot
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/day	pound per day
lb EPS bead/hr	pounds of EPS beads per hour
MMBtu/hr	million British thermal units per hour
NO _x	nitrogen oxides
SIC	Standard Industrial Classification
SM80	synthetic minor source with emissions limited to 80% to less than 100% of the major source threshold
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

AIR QUALITY PERMIT TO CONSTRUCT AND TIER II OPERATING PERMIT NO.: T2-2007.0228**Permittee:** Foam Molders, Inc.**Location:** Post Falls, Idaho**Facility ID No. 055-00047****1. PERMIT SCOPE*****Purpose***

- 1.1 The purpose of this permit is to renew the Tier II operating permit.
- 1.2 This PTC and Tier II operating permit renewal replaces the following permit(s), the terms and conditions of which shall no longer apply:
- Tier II Operating Permit and Permit to Construct No. P-060109, issued June 9, 2006

Regulated Sources

- 1.3 Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2	<u>Boiler A</u> Manufacturer: Superior Model: 6-750 Construction date: 1996 Rated heat capacity: 6.3 MMBtu/hr Burner type: Horizontally fired Stack diameter: 14 inches Stack height: 32 feet Fuel: Natural gas	None
3	Processing equipment	None

[PTC Condition]

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2. FACILITY-WIDE CONDITIONS

Fugitive Emissions

- 2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:
- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
 - Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
 - Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
 - Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
 - Paving of roadways and their maintenance in a clean condition, where practical.
 - Prompt removal of earth or other stored material from streets, where practical.
- 2.2 The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.
- 2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- 2.4 The permittee shall conduct a quarterly facility-wide inspection of potential sources of fugitive emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

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- 2.5 The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.
- 2.6 The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall, at a minimum, include the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Visible Emissions

- 2.7 The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO_x, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.
- 2.8 The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

Open Burning

- 2.9 The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, Rules for Control of Open Burning.

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Air Stagnation Advisory Days

2.10 The permittee shall comply with the Air Pollution Emergency Rule in IDAPA 58.01.01.550-562.

Reports and Certifications

2.11 Any reporting required by this permit, including but not limited to, records, monitoring data, supporting information, requests for confidential treatment, notifications of intent to test, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Coeur d'Alene Regional Office
2110 Ironwood Parkway
Coeur d'Alene, ID 83814
Phone: (208) 769-1422
Fax: (208) 769-1404

Obligation to Comply

2.12 Receiving a Tier II operating permit shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

Fuel-burning Equipment

2.13 The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas, or 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid.

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Facility ID No. 055-00047**3. PROCESS EQUIPMENT****3.1 Process Description**

The EPS raw material (beads) arrives in 1,000-pound boxes. The beads are vacuum fed to the pre-expander where they are partially expanded to their desired density, using steam from a natural gas-fired boiler. Steam is used to heat the beads and to release pentane, which is the encapsulated blowing agent contained within the beads. Expanded beads are aged in the prepuff storage for a period between two to 48 hours, to allow the prepuff to stabilize. The material is then transferred into molds or presses where, using steam, the beads are fused together into desired shapes, based on the mold forms. The molded shapes are then cut to their final size and shape, and stored. Each step of the process results in pentane emissions.

VOC emissions, as pentane, are emitted from the processes and equipment referenced above, the above referenced equipment is hereafter referred to as "process equipment".

3.2 Emission Control Description

There are no emission controls for these processes.

Emission Limits**3.3 Emission Limits**

- The combined VOC emissions from the process equipment shall not exceed 2,856 lb/day
- The combined VOC emissions from the process equipment shall not exceed 95.2 tons per any consecutive 12-month period.

[PTC Condition]

3.3.1 Compliance with Permit Condition 3.3 shall be determined using the equations below and in Permit Condition 3.4:

- Daily VOC Limit

$$\text{Daily VOC} = \text{Throughput (lb/day)} \times \% \text{ pentane} \times 0.85$$

- Annual VOC Limit

$$\text{Annual VOC} = \text{Throughput (lb/12-months)} \times \text{average \% pentane} \times 0.85$$

[PTC Condition]***Operating Requirements*****3.4 Throughput Limits**

Throughput shall be limited based on the pentane content of the EPS beads and shall be determined using the following equations:

- Maximum Daily Throughput Limit

$$\text{Daily Throughput (lb/day)} = \frac{2,856 \text{ lbVOC/day}}{\% \text{ pentane} \times 0.85}$$

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- Maximum Annual Throughput Limit

$$\text{Annual Throughput (lb/12-months)} = \frac{95.2 \text{ ton} \times 2000 \frac{\text{lb}}{\text{ton}}}{\text{average \% pentane} \times 0.85}$$

[PTC Condition]

3.5 Pentane Limit

The permittee shall not expand, or further process, any EPS beads that contain pentane in quantities greater than 7% by weight.

3.6 Allowable Fuels

Natural gas exclusively shall be combusted in the boiler.

[Draft][PTC Condition]

Monitoring and Recordkeeping Requirements

3.7 Monitor Operating Parameters

A compilation of the most recent five years of records shall be kept onsite and shall be available to DEQ representatives upon request. The permittee shall monitor and record the following information:

- The pentane emissions in pounds of VOC per day and pounds of VOC per the most recent 12-month period, using the equations in Permit Condition 3.3.1 and 3.4;

[PTC Condition]

- The actual throughput of beads calculated by Permit Condition 3.4 both daily and annually;

[PTC Condition]

- Documentation for each purchase of EPS beads that shows the percent pentane by weight of the beads.

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Foam Molders, Inc., Post Falls Emission Limits^a – Daily (lb/day), and Annual^b (T/yr)		
Source Description	VOC	
	lb/day	T/yr
Process Equipment	2,856	95.2

^aAs determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

^bAs determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

[PTC Condition]

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5. PERMIT TO CONSTRUCT AND TIER II OPERATING PERMIT GENERAL PROVISIONS

General Compliance

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit, the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act.
[Idaho Code §39-101, et seq.]
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
[IDAPA 58.01.01.211, 405, 5/1/94]
3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules and regulations.
[IDAPA 58.01.01.212.01, 406, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
 - a. Enter upon the permittee's premises where an emission source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.**[Idaho Code §39-108]**

Construction and Operation Notification

5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:
 - a. A notification of the date of initiation of construction, within five working days after occurrence;

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- b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
- c. A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;
- d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- e. A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211, 5/1/94]***Performance Testing***

6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]***Monitoring and Recordkeeping***

7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 405, 5/1/94]

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Excess Emissions

8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.
[IDAPA 58.01.01.130-136, 4/5/00]

Certification

9. All documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.
[IDAPA 58.01.01.123, 5/1/94]

False Statements

10. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.
[IDAPA 58.01.01.125, 3/23/98]

Tampering

11. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.
[IDAPA 58.01.01.126, 3/23/98]

Expiration and Renewal

12. This permit shall be renewable on the expiration date, provided the permittee submits an application for renewal to the Department and continues to meet all terms and conditions contained in the permit. The expiration of this permit will not affect the operation of the stationary source or facility during the administrative procedure period associated with the permit renewal process.
[IDAPA 58.01.01.209.04, 7/1/02]

Transferability

13. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06 and 404.05.
[IDAPA 58.01.01.209.06, 404.05, 4/11/06]

Severability

14. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]